

## Amendments to the Claims

### I. Amendments

Please amend claims 1 and 13 as indicated below.

Please add new claims 25-28.

### II. The Claims of the Application

Claim 1. (Currently amended) A compound of the formula:



where  $R^1$  is  $\text{CH}_3\text{-(CH}_2\text{)}_n\text{-X-}$ ; in which

X is  $\text{-C(O)-NH-CH}_2\text{-C(O)-}$ ,  $\text{-NHCH}_2\text{-C(O)-}$ ,  $\text{-ONH-CH}_2\text{-C(O)-}$ ,  
 $\text{-OCH}_2\text{-CH}_2\text{-C(O)-}$ ,  $\text{-CH=CH-C(O)-}$ ,  $\text{-C(O)-}$ , or a covalent bond;  
and n is an integer of 4-8;

and in which RANTES (2-68) is a polypeptide having the sequence:

PYSSDT TPCCFAYIAR PLPRAHIKEY FYTSGKCSNP

AVVFVTRKNR QVCANPEKKW VREYINSLEM S

(SEQ ID No. 2) or ~~a sequence which~~ is a polypeptide having a  
variant of said sequence, the variant sequence having at least ~~40%~~  
80% sequence homology with said sequence;

wherein said compound inhibits HIV-1 R5 virus infection of PBMCs in vitro;

or a pharmaceutically acceptable salt thereof.

Claim 2. (Original) The compound of claim 1, wherein n is 4 and  
X is  $\text{-C(O)-NH-CH}_2\text{-C(O)-}$ .

Claim 3. (Original) The compound of claim 1, wherein n is 5  
and X is  $\text{-NH-CH}_2\text{-C(O)-}$ .

- Claim 4. (Original) The compound of claim 1, wherein n is 7 and X is -C(O)-.
- Claim 5. (Original) The compound of claim 1, wherein n is 8 and X is a covalent bond.
- Claim 6. (Previously amended) The compound of claim 1, wherein n is 4 and X is -ONH-CH<sub>2</sub>-C(O)-.
- Claim 7. (Previously amended) The compound of claim 1, wherein n is 5 and X is -CH=CH-C(O)-.
- Claim 8. (Original) The compound of claim 1, wherein n is 4 and X is -OCH<sub>2</sub>-CH<sub>2</sub>-C(O)-.
- Claim 9-12. (Cancelled)
- Claim 13. (Currently amended) A pharmaceutical composition ~~for administration to a mammal having a disease state in that is alleviated by treatment with a RANTES inhibitor~~, which composition comprises a therapeutically effective amount of a compound of the formula:



where R<sup>1</sup> is CH<sub>3</sub>-(CH<sub>2</sub>)<sub>n</sub>-X-; in which

X is -C(O)-NH-CH<sub>2</sub>-C(O)-, -NHCH<sub>2</sub>-C(O)-, -ONH-CH<sub>2</sub>-C(O)-, -OCH<sub>2</sub>-CH<sub>2</sub>-C(O)-, -CH=CH-C(O)-, -C(O)-, or a covalent bond;  
and n is an integer of 4-8;

and in which RANTES (2-68) is a polypeptide having the sequence:

PYSSDT TPCCFAYIAR PLPRAHIKEY FYTSGKCSNP  
AVVFVTRKNR QVCANPEKKW VREYINSLEM S

(SEQ ID No. 2) or ~~a sequence which~~ is a polypeptide having a variant of said sequence, the variant sequence having at least **40% 80%** sequence homology with said sequence;

**wherein said compound inhibits HIV-1 R5 virus infection of PBMCs in vitro;**

or a pharmaceutically acceptable salt thereof;

in admixture with one or more pharmaceutically acceptable excipients.

Claim 14-17. **(Cancelled)**

Claim 18. **(Previously added)** The pharmaceutical composition of claim 13, wherein N is 4 and X is -C(O)-NH-CH<sub>2</sub>-C(O)-.

Claim 19. **(Previously added)** The pharmaceutical composition of claim 13, wherein N is 5 and X is -NHCH<sub>2</sub>-C(O)-.

Claim 20. **(Previously added)** The pharmaceutical composition of claim 13, wherein N is 7 and X is -C(O)-.

Claim 21 **(Previously added)** The pharmaceutical composition of claim 13, wherein N is 8 and X is a covalent bond.

Claim 22. **(Previously added)** The pharmaceutical composition of claim 13, wherein N is 4 and X is -ONH-CH<sub>2</sub>-C(O)-.

Claim 23. **(Previously added)** The pharmaceutical composition of claim 13, wherein N is 5 and X is -CH=CH-C(O)-.

Claim 24. **(Previously added)** The pharmaceutical composition of claim 13, wherein N is 4 and X is -OCH<sub>2</sub>-CH<sub>2</sub>-C(O)-.

Claims 25-28. **(Cancelled)**

Claim 29. **(New)** A compound of the formula:



where R<sup>1</sup> is CH<sub>3</sub>-(CH<sub>2</sub>)<sub>n</sub>-X-; in which

X is -C(O)-NH-CH<sub>2</sub>-C(O)-, -NHCH<sub>2</sub>-C(O)-, -ONH-CH<sub>2</sub>-C(O)-, -OCH<sub>2</sub>-CH<sub>2</sub>-C(O)-, -CH=CH-C(O)-, -C(O)-, or a covalent bond;  
and n is an integer of 4-8;

and in which RANTES (2-68) is a polypeptide having the sequence:

PYSSDT TPCCFAYIAR PLPRAHIKEY FYTSGKCSNP  
AVVVFVTRKNR QVCANPEKKW VREYINSLEM S

(SEQ ID No. 2) or is a polypeptide having a variant of said sequence, the variant sequence having at least 80% sequence homology with said sequence;

wherein said compound binds to the RANTES CCR5 receptor;

or a pharmaceutically acceptable salt thereof.

Claim 30. (New) A pharmaceutical composition, which composition comprises a therapeutically effective amount of a compound of the formula:

R<sup>1</sup>-RANTES (2-68)

where R<sup>1</sup> is CH<sub>3</sub>-(CH<sub>2</sub>)<sub>n</sub>-X-; in which

X is -C(O)-NH-CH<sub>2</sub>-C(O)-, -NHCH<sub>2</sub>-C(O)-, -ONH-CH<sub>2</sub>-C(O)-, -OCH<sub>2</sub>-CH<sub>2</sub>-C(O)-, -CH=CH-C(O)-, -C(O)-, or a covalent bond;  
and n is an integer of 4-8;

and in which RANTES (2-68) is a polypeptide having the sequence:

PYSSDT TPCCFAYIAR PLPRAHIKEY FYTSGKCSNP  
AVVVFVTRKNR QVCANPEKKW VREYINSLEM S

(SEQ ID No. 2) or is a polypeptide having a variant of said sequence, the variant sequence having at least 80% sequence homology with said sequence;

wherein said compound binds to the RANTES CCR5 receptor;

or a pharmaceutically acceptable salt thereof;

in admixture with one or more pharmaceutically acceptable excipients.

Claim 31. (New) A compound of the formula:



where  $R^1$  is  $\text{CH}_3\text{-(CH}_2)_n\text{-X-}$ ; in which

X is  $\text{-C(O)-NH-CH}_2\text{-C(O)-}$ ,  $\text{-NHCH}_2\text{-C(O)-}$ ,  $\text{-ONH-CH}_2\text{-C(O)-}$ ,  
 $\text{-OCH}_2\text{-CH}_2\text{-C(O)-}$ ,  $\text{-CH=CH-C(O)-}$ ,  $\text{-C(O)-}$ , or a covalent bond;  
and n is an integer of 4-8;

and in which RANTES (2-68) is a polypeptide having the sequence:

PYSSDT TPCCFAYIAR PLPRAHIKEY FYTSGKCSNP  
AVVVFVTRKNR QVCANPEKKW VREYINSLEM S

(SEQ ID No. 2) or variant of said sequence having from 1 to 20  
single amino acid deletions, insertions or substitutions relative to  
said sequence;

wherein said compound inhibits HIV-1 R5 virus infection of PBMCs in  
vitro;

or a pharmaceutically acceptable salt thereof.

Claim 32. (New) A pharmaceutical composition, which composition comprises a  
therapeutically effective amount of a compound of the formula:



where  $R^1$  is  $\text{CH}_3\text{-(CH}_2)_n\text{-X-}$ ; in which

X is  $\text{-C(O)-NH-CH}_2\text{-C(O)-}$ ,  $\text{-NHCH}_2\text{-C(O)-}$ ,  $\text{-ONH-CH}_2\text{-C(O)-}$ ,  
 $\text{-OCH}_2\text{-CH}_2\text{-C(O)-}$ ,  $\text{-CH=CH-C(O)-}$ ,  $\text{-C(O)-}$ , or a covalent bond;  
and n is an integer of 4-8;

and in which RANTES (2-68) is a polypeptide having the sequence:

PYSSDT TPCCFAYIAR PLPRAHIKEY FYTSGKCSNP  
AVVVFVTRKNR QVCANPEKKW VREYINSLEM S

(SEQ ID No. 2) or variant of said sequence having from 1 to 20  
single amino acid deletions, insertions or substitutions relative to  
said sequence;

wherein said compound inhibits HIV-1 R5 virus infection of PBMCs in vitro;  
or a pharmaceutically acceptable salt thereof;  
in admixture with one or more pharmaceutically acceptable excipients.

Claim 33. (New) A compound of the formula:



where  $R^1$  is  $\text{CH}_3\text{-(CH}_2\text{)}_n\text{-X-}$ ; in which

X is  $\text{-C(O)-NH-CH}_2\text{-C(O)-}$ ,  $\text{-NHCH}_2\text{-C(O)-}$ ,  $\text{-ONH-CH}_2\text{-C(O)-}$ ,  
 $\text{-OCH}_2\text{-CH}_2\text{-C(O)-}$ ,  $\text{-CH=CH-C(O)-}$ ,  $\text{-C(O)-}$ , or a covalent bond;  
and n is an integer of 4-8;

and in which RANTES (2-68) is a polypeptide having the sequence:

PYSSDT TPCCFAYIAR PLPRAHIKEY FYTSGKCSNP  
AVV FVTRKNR QVCANPEKKW VREYINSLEM S

(SEQ ID No. 2) or variant of said sequence having from 1 to 20  
single amino acid deletions, insertions or substitutions relative to  
said sequence;

wherein said compound binds to the RANTES CCR5 receptor;  
or a pharmaceutically acceptable salt thereof.

Claim 34. (New) A pharmaceutical composition, which composition comprises a  
therapeutically effective amount of a compound of the formula:



where  $R^1$  is  $\text{CH}_3\text{-(CH}_2\text{)}_n\text{-X-}$ ; in which

X is  $\text{-C(O)-NH-CH}_2\text{-C(O)-}$ ,  $\text{-NHCH}_2\text{-C(O)-}$ ,  $\text{-ONH-CH}_2\text{-C(O)-}$ ,  
 $\text{-OCH}_2\text{-CH}_2\text{-C(O)-}$ ,  $\text{-CH=CH-C(O)-}$ ,  $\text{-C(O)-}$ , or a covalent bond;  
and n is an integer of 4-8;

and in which RANTES (2-68) is a polypeptide having the sequence:

PYSSDT TPCCFAYIAR PLPRAHIKEY FYTSGKCSNP  
AVV FVTRKNR QVCANPEKKW VREYINSLEM S

(SEQ ID No. 2) or variant of said sequence having from 1 to 20  
single amino acid deletions, insertions or substitutions relative to  
said sequence;  
wherein said compound binds to the RANTES CCR5 receptor;  
or a pharmaceutically acceptable salt thereof;  
in admixture with one or more pharmaceutically acceptable excipients.